

**FEDERALLY ENFORCEABLE STATE  
OPERATING PERMIT (FESOP)  
Office of Air Quality**

**Waupaca Pallet, Inc.  
Lot 6, Commerce Drive, Tell City Industrial Park  
Troy, Indiana 47588**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 123-10565-00022	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 24, 1999

First Significant Permit Revision No.: 123-13729-00022	Pages Affected: 4, 4a, 21-24a, 27-28a
Issued by: Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: June 7, 2001

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## SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

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The Permittee owns and operates a stationary dip tank line.

Authorized Individual: Robert Mittelstaedt  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
Phone Number: (920) 867-4181  
SIC Code: 3479  
County Location: Perry  
County Status: Attainment for all criteria pollutants  
Source Status: Federally Enforceable State Operating Permit (FESOP)  
Minor Source, under PSD Rules;  
Minor Source, Section 112 of the Clean Air Act

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) dip tank line, identified as S01 P01, with a maximum production rate of 20,000 pounds per hour of iron castings and one (1) natural gas dip tank drying oven, with a maximum heat input rate of 8.5 million British thermal units (MMBtu) per hour, exhausting through stack ID # S01; and
- (b) One (1) spray paint booth, identified as S02 P02, with a maximum capacity of coating 20,000 metal parts per hour, using dry filters for particulate matter overspray control, and exhausting through stack ID No. S02.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

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This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

### A.4 FESOP Applicability [326 IAC 2-8-2]

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This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

### A.5 Prior Permit Conditions

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- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

## SECTION D.1

## FACILITY CONDITIONS

### Facility Description [326 IAC 2-8-4(10)]

- (a) One (1) dip tank line, identified as S01 P01, with a maximum production rate of 20,000 pounds per hour of iron castings and one (1) natural gas dip tank drying oven, with a maximum heat input rate of 8.5 million British thermal units (MMBtu) per hour, exhausting through stack ID # S01; and
- (b) One (1) spray paint booth, identified as S02 P02, with a maximum capacity of coating 20,000 metal parts per hour, using dry filters for particulate matter overspray control, and exhausting through stack ID No. S02.

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

### Construction Conditions for Spray Paint Booth

#### General Construction Conditions

- D.1.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

#### Effective Date of the Permit

- D.1.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.1.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

### Operation Conditions

#### Emission Limitations and Standards [326 IAC 2-8-4(1)]

##### D.1.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1] [326 IAC 2-8-4]

Pursuant to 326 IAC 2-8-4 the amount of single and total HAPs delivered to the applicator of the dip tank line and spray paint booth shall be limited to less than 10 and 25 tons per 12 month period, rolled on a monthly basis, respectively. Compliance with the HAP usage limit shall also render the maximum achievable control technology (MACT) requirement in 326 IAC 2-4.1-1 (New Source Toxics Control) not applicable. Any change or modification, which may increase source wide single or total HAP emissions to 10 and 25 tons per 12 consecutive month period, or greater, shall require OAQ approval before such change can take place.

##### D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the source chooses to comply with this rule using 326 IAC 8-1-2(a)(9)(A) and (B) for the one (1) dip tank. The equivalent emission limits in units of kilograms of VOC per liter solids deposited (pounds of VOC per gallon solids deposited), baseline transfer efficiencies, and baseline volume percent solids content of coatings are as follows:

Miscellaneous Metal Coating Category	Equivalent Emission Limit kg/l (lbs/gal)	Baseline Transfer Efficiency	Baseline Volume Percent Solids
Clear Coatings	2.08 (17.3)	60 %	41.6
Air Dried up to 90 ° C	1.34 (11.2)	60 %	52.4
Extreme Performance Coating	1.34 (11.2)	60 %	52.4
All other coatings and coating systems	1.01 (8.4)	60 %	59.2

Pursuant to 326 IAC 8-1-2(a)(9)(B), the limits are based on the following equation:

$$E = \frac{L}{[(1-(L/D)) \times (T)]}$$

where E = Equivalent emission limit (pounds of VOC per gallon of coating solids deposited)

L = Actual VOC content (pounds of VOC per gallon coating, as applied)

D = Actual density of VOC in coating (pounds per gallon of VOC)

T = Actual measured transfer efficiency

The equivalent emission limit for both the Yenkin and Lilly coatings is 11.2 pounds of VOCs per gallon of coating solids deposited.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal parts or products in one (1) spray paint booth shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator, for air dried, forced warm air dried, or extreme performance coatings.

Solvent used during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent use is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

- (c) The amount of volatile organic compounds (VOCs) delivered to the applicators plus the amount of VOCs used for clean-up shall be limited to less than 100 tons per 12 consecutive month period. Compliance shall be demonstrated at the end of each month, based on the total usage for the most recent 12 month period. Therefore, the requirements of 326 IAC 2-7 (Part 70), do not apply.

**D.1.6 Particulate Matter (PM) [326 IAC 6-3-2]**

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Pursuant to 326 IAC 6-3-2, the PM from the one (1) paint booth (S02 P02) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

**D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these emission units and any control devices.

**Compliance Determination Requirements**

**D.1.8 Testing Requirements [326 IAC 2-1.1-11]**

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The Permittee is not required to test this emission unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the single and total HAP and VOC limits specified in Conditions D.1.4 and D.1.5 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

**D.1.9 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)**

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- (a) Compliance with the VOC content and usage limitations contained in Conditions D.1.4, D.1.5(a) and D.1.5(b) shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) Compliance with Conditions D.1.4 and D.1.5(c) shall be demonstrated within 30 days of the end of each month based on the VOC usage for the most recent twelve (12) month period.

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.10 Particulate Matter (PM)**

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In order to comply with Condition D.1.6, the dry filters for PM control shall be in operation at all times when the one (1) paint booth (S02 P02) is in operation.

**D.1.11 Monitoring**

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- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack (S02) while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

### **Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

#### **D.1.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.4 and D.1.5(c), the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Conditions D.1.4 and D.1.5(c).
  - (1) The amount and VOC and HAP content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The cleanup solvent usage for each month;
  - (4) The total VOC and HAP usage for each month; and
  - (5) The weight of VOCs and HAPs emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### **D.1.13 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions D.1.4 and D.1.5(c) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Waupaca Pallet, Inc.  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
FESOP No.: 123-10565-00022  
Facility: Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
Parameter: Single hazardous air pollutants (HAPs)  
Limit: The single HAP usage is limited to less than 10 tons per twelve (12) month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Total Single HAP Emissions This Month (tons)	Previous 11 Month Single HAP Emissions (tons)	12 Month Total Single HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Waupaca Pallet, Inc.  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
FESOP No.: 123-10565-00022  
Facility: Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
Parameter: Total hazardous air pollutants (HAPs)  
Limit: The total HAP usage is limited to less than 25 tons per twelve (12) month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Total HAP Emissions This Month (tons)	Previous 11 Month HAP Emissions (tons)	12 Month Total HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Waupaca Pallet, Inc.  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
FESOP No.: 123-10565-00022  
Facility: Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
Parameter: Volatile Organic Compounds (VOC)  
Limit: The VOC usage is limited to less than 100 tons per twelve (12) month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Total VOC Emissions This Month (tons)	Previous 11 Month VOC Emissions (tons)	12 Month Total VOC Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

## **Indiana Department of Environmental Management Office of Air Quality**

### **Technical Support Document (TSD) for a for a Significant Permit Revision to a Federally Enforceable State Operating Permit**

#### **Source Background and Description**

<b>Source Name:</b>	<b>Waupaca Pallet, Inc.</b>
<b>Source Location:</b>	<b>Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588</b>
<b>County:</b>	<b>Perry</b>
<b>SIC Code:</b>	<b>3479</b>
<b>Operation Permit No.:</b>	<b>F 123-10565-00022</b>
<b>Operation Permit Issuance Date:</b>	<b>June 24, 1999</b>
<b>Permit Revision No.:</b>	<b>123-13729-00022</b>
<b>Permit Reviewer:</b>	<b>Linda Quigley/EVP</b>

The Office of Air Quality (OAQ) has reviewed a significant permit revision application from Waupaca Pallet, Inc. relating to the construction and operation of a spray paint booth.

#### **New Emission Units and Pollution Control Equipment**

One (1) spray paint booth, identified as S02 P02, with a maximum capacity of coating 20,000 metal parts per hour, using dry filters for particulate matter overspray control, and exhausting through stack ID No. S02.

#### **History**

On December 28, 2000, Waupaca Pallet, Inc. submitted an application to the OAQ requesting to add an additional surface coating booth to their existing plant. Waupaca Pallet was issued a Federally Enforceable State Operating Permit (FESOP) on June 24, 1999.

#### **Existing Approvals**

The source was issued a FESOP 123-10565-00022 on June 24, 1999.

#### **Enforcement Issue**

There are no enforcement actions pending.

## Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
S01	dip tank drying oven	5	0.83	3,200	68
S02	spray booth painting	16	24	30,000	68

## Recommendation

The staff recommends to the Commissioner that the Significant Permit Revision be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on December 28, 2000. Additional information was received on March 12, 2001.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations, pages 1 and 2.

## Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

Pollutant	Potential To Emit (tons/year)
PM	174.08
PM-10	174.08
SO <sub>2</sub>	0.00
VOC	122.33
CO	0.00
NO <sub>x</sub>	0.00

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Potential To Emit (tons/year)
Triethylamine	greater than 10
TOTAL	less than 25

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

The source has agreed to limit VOC emissions to less than 100 tons per year. Therefore, rule 326 IAC 2-8 will apply.

- (b) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

The source has agreed to limit HAPs to less than 10 tons per year for a single HAP and 25 tons per year for a combination of HAPs. Therefore, rule 326 IAC 2-8 will apply.

### Actual Emissions

No previous emission data has been received from this source.

### Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

	Limited Potential to Emit (tons/year)							
Process/facility	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	Single HAP	Total HAPs
Proposed Spray Painting Booth	8.70	8.70	0.00	72.50	0.00	0.00	< 10	< 25
Existing Drying Oven	0.30	0.30	0.00	0.20	3.10	3.70	0.00	0.00
Existing Dip Tank	0.00	0.00	0.00	26.5	0.00	0.00	< 10	< 25
Total Emissions	9.00	9.00	0.00	< 100	3.10	3.70	< 10	< 25

### County Attainment Status

The source is located in Perry County.

Pollutant	Status
PM-10	attainment
SO <sub>2</sub>	attainment
NO <sub>2</sub>	attainment
Ozone	attainment
CO	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) and oxides of nitrogen (NO<sub>x</sub>) are precursors for the formation of ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. Perry County has been designated as attainment or unclassifiable for ozone.

### Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR art 63) applicable to this source at this time. However, pursuant to the Clean Air Act of 1990, the United States Environmental Protection Agency (US EPA) has established the *Miscellaneous Metal Parts and Products (Surface Coating)* source category as requiring hazardous air pollutant control. The US EPA has established November 15, 2000 as the final rule promulgation date for HAP emissions control for this source category, which at present is expected to affect only major sources of HAPs. Since the source will limit single HAP and combination HAPs to less than 10 tpy and 25 tpy respectively, this NESHAP will not apply. No other NESHAPs apply to this source.

#### **State Rule Applicability - Entire Source**

##### **326 IAC 2-2 (Prevention of Significant Deterioration)**

This source is not subject to 326 IAC 2-2 (Prevention of Significant Deterioration) because the source is located in Perry County, the federally enforceable limited potential to emit of any pollutant is less than 250 tons per year, and the source is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2.

##### **326 IAC 2-6 (Emission Reporting)**

This source is located in Perry County and the potential to emit any regulated pollutant is less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

##### **326 IAC 5-1 (Visible Emissions Limitations)**

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### **State Rule Applicability - Individual Facilities**

##### **326 IAC 2-4.1-1 (New Source Toxics Control)**

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) ten (10) tons per year of any HAP or twenty-five (25) tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). Since this source will limit any single HAP to less than 10 tons per twelve (12) consecutive month period, rolled on a monthly basis and the potential to emit of any combination of HAPs is less than twenty-five (25) tons per year, the requirements of 326 IAC 2-4.1-1 do not apply.

##### **326 IAC 2-8-4 (FESOP)**

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the source will limit source-wide single and combination HAP emissions to less than ten (10) tons and twenty-five (25) tons, respectively, per twelve consecutive month period, rolled on a monthly basis. The source will also limit source-wide VOC emissions to less than one-hundred (100) tons per twelve consecutive month period, rolled on a monthly basis. Therefore the requirements of 326 IAC 2-7 do not apply.

**326 IAC 6-3-2 (Process Operations)**

The particulate matter (PM) from the spray booth (S02 P02) shall be limited by the following:

Interpolation and extrapolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The dry filter shall be in operation at all times the spray booth (S02 P02) is in operation, in order to comply with this limit.

**326 IAC 8-2-9 (Miscellaneous Metal Coating)**

Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coating delivered to the applicator at the spray booth for coating metal parts shall be limited to 3.5 pounds of VOCs per gallon of coating less water, for forced warm or air dried coatings.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

Based on the MSDS submitted by the source and calculations made, the spray booth is in compliance with this requirement.

**Compliance Requirements**

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The one (1) spray booth has applicable compliance monitoring conditions as specified below:

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack (S-1) while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

These monitoring conditions are necessary because the dry filters for the one (1) spray booth must operate properly to ensure compliance with 326 IAC 6-3 (Process Operations) and 326 IAC 2-8 (FESOP).

### Proposed Permit Changes

#### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) dip tank line, identified as S01 P01, with a maximum production rate of 20,000 pounds per hour of iron castings and one (1) natural gas dip tank drying oven, with a maximum heat input rate of 8.5 million British thermal units (MMBtu) per hour, exhausting through stack ID # S01; **and**
- (b) **One (1) spray paint booth, identified as S02 P02, with a maximum capacity of coating 20,000 metal parts per hour, using dry filters for particulate matter overspray control, and exhausting through stack ID No. S02.**

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.1.4 Hazardous Air Pollutants (HAPs) [326 IAC 2-4.1-1] [326 IAC 2-8-4]

**Pursuant to 326 IAC 2-8-4** the amount of single and total HAPs delivered to the applicator of the dip tank line **and spray paint booth** shall be limited to less than 10 and 25 tons per 12 month period, rolled on a monthly basis, respectively. ~~Therefore, Compliance with the HAP usage limit shall also render~~ the maximum achievable control technology (MACT) requirement in 326 IAC 2-4.1-1 (New Source Toxics Control) ~~does not apply~~ **applicable**. Any change or modification, ~~from the dip tank line that would~~ **which may** increase in source wide single ~~and or~~ total HAP emissions to ~~more than 10 and 25 tons per year per 12 consecutive month period, or greater,~~ shall ~~obtain approval from the Office of Air Management (OAM), as required by 326 IAC 2-1 before such change can occur.~~ **require OAQ approval before such change can take place.**

#### D.1.5 Volatile Organic Compounds (VOC) [326 IAC 8-2-9]

- (a) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the source chooses to comply with this rule using 326 IAC 8-1-2(a)(9)(A) and (B) **for the one (1) dip tank operation**. The equivalent emission limits in units of kilograms of VOC per liter solids deposited (pounds of VOC per gallon solids deposited), baseline transfer efficiencies, and baseline volume percent solids content of coatings are as follows:

Miscellaneous Metal Coating Category	Equivalent Emission Limit kg/l (lbs/gal)	Baseline Transfer Efficiency	Baseline Volume Percent Solids
Clear Coatings	2.08 (17.3)	60 %	41.6
Air Dried up to 90 ° C	1.34 (11.2)	60 %	52.4
Extreme Performance Coating	1.34 (11.2)	60 %	52.4
All other coatings and coating systems	1.01 (8.4)	60 %	59.2

Pursuant to 326 IAC 8-1-2(a)(9)(B), the limits are based on the following equation:

$$E = \frac{L}{[(1-(L/D)) \times (T)]}$$

where: E = Equivalent emission limit (pounds of VOC per gallon of coating solids deposited)  
L = Actual VOC content (pounds of VOC per gallon coating, as applied)  
D = Actual density of VOC in coating (pounds per gallon of VOC)  
T = Actual measured transfer efficiency

The equivalent emission limit for both the Yenkin and Lilly coatings is 11.2 pounds of VOCs per gallon of coating solids deposited.

Solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

- (b) Pursuant to 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations), the volatile organic compound (VOC) content of coatings applied to metal parts or products in one (1) spray paint booth shall be limited to 3.5 pounds of VOC per gallon of coating less water delivered to the applicator, for air dried, forced warm air dried, or extreme performance coatings.

Solvent used during clean up or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent use is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.

- (c) The amount of volatile organic compounds (VOCs) delivered to the applicators plus the amount of VOCs used for clean-up shall be limited to less than 100 tons per 12 consecutive month period. Compliance shall be demonstrated at the end of each month, based on the total usage for the most recent 12 month period. Therefore, the requirements of 326 IAC 2-7 (Part 70), do not apply.

**D.1.6 Particulate Matter (PM) [326 IAC 6-3-2]**

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Pursuant to 326 IAC 6-3-2, the PM from the one (1) paint booth (S02 P02) shall not exceed the pound per hour emission rate established as E in the following formula:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour; and  
P = process weight rate in tons per hour

~~D.1.6~~ **D.1.7 Preventive Maintenance Plan [326 IAC 1-6-3]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these emission units and any control devices.

**Compliance Determination Requirements**

~~D.1.7~~ **D.1.8 Testing Requirements [326 IAC 2-1.1-11]**

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The Permittee is not required to test this emission unit by this permit. However, IDEM may require compliance testing when necessary to determine if the emissions unit is in compliance. If testing is required by IDEM, compliance with the single and total HAP and VOC limits specified in Conditions D.1.4 and D.1.5 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

~~D.1.8~~ **D.1.9 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP)**

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- (a) Compliance with the VOC content and usage limitations contained in Conditions **D.1.4**, **D.1.5(a)** and **D.1.5(b)** shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) using formulation data supplied by the coating manufacturer. IDEM, OAQ reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.
- (b) **Compliance with Conditions D.1.4 and D.1.5(c) shall be demonstrated within 30 days of the end of each month based on the VOC usage for the most recent twelve (12) month period.**

~~D.1.9~~ **Single and Total HAP Emissions**

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~~Compliance with Condition D.1.4 shall be demonstrated within 30 days of the end of each month based on the single and total HAP usage for the most recent twelve (12) month period.~~

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

**D.1.10 Particulate Matter (PM)**

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In order to comply with Condition D.1.6, the dry filters for PM control shall be in operation at all times when the one (1) paint booth (S02 P02) is in operation.

**D.1.11 Monitoring**

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- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack (S02) while the booth is in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.

- (b) **Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Monitoring Plan - Failure to Take Response Steps, shall be considered a violation of this permit.**
- (c) **Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.**

**Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [ 326 IAC 2-6.1-5(a)(2)]**

**~~D.1.10~~ D.1.12 Record Keeping Requirements**

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- (a) To document compliance with Conditions **D.1.4 and D.1.5(c)**, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the **VOC and HAP** usage limits and/or the **VOC and HAP** emission limits established in Conditions **D.1.4 and D.1.5(c)**.
  - (1) The amount and **VOC and HAP** content of each coating material and solvent used. Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used. Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents;
  - (2) A log of the dates of use;
  - (3) The cleanup solvent usage for each month;
  - (4) The total **VOC and HAP** usage for each month; and
  - (5) The weight of **VOCs and HAPs** emitted for each compliance period.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**~~D.1.11~~ D.1.13 Reporting Requirements**

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A quarterly summary of the information to document compliance with Conditions **D.1.4 and D.1.5(c)** shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Waupaca Pallet, Inc.  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
FESOP No.: 123-10565-00022  
Facility: Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
Parameter: Single hazardous air pollutants (HAPs)  
Limit: The single HAP usage is limited to less than 10 tons per twelve (12) month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Total Single HAP Emissions This Month (tons)	Previous 11 Month Single HAP Emissions (tons)	12 Month Total Single HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

Source Name: Waupaca Pallet, Inc.  
Source Address: Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
Mailing Address: N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
FESOP No.: 123-10565-00022  
Facility: Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
Parameter: Total hazardous air pollutants (HAPs)  
Limit: The total HAP usage is limited to less than 25 tons per twelve (12) month period, rolled on a monthly basis.

YEAR: \_\_\_\_\_

Month	Total HAP Emissions This Month (tons)	Previous 11 Month HAP Emissions (tons)	12 Month Total HAP Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_  
Title / Position: \_\_\_\_\_  
Signature: \_\_\_\_\_  
Date: \_\_\_\_\_  
Phone: \_\_\_\_\_

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT**  
**Office of Air Quality**  
**COMPLIANCE DATA SECTION**

**FESOP Quarterly Report**

**Source Name:** Waupaca Pallet, Inc.  
**Source Address:** Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
**Mailing Address:** N. 2467 Vaughn Road, Waupaca, WI 59481-9030  
**FESOP No.:** 123-10565-00022  
**Facility:** Dip Tank Line (S01 P01) and Paint Booth (S02 P02)  
**Parameter:** Volatile Organic Compounds (VOC)  
**Limit:** The VOC usage is limited to less than 100 tons per twelve (12) month period, rolled on a monthly basis.

**YEAR:** \_\_\_\_\_

Month	Total VOC Emissions This Month (tons)	Previous 11 Month VOC Emissions (tons)	12 Month Total VOC Emissions (tons)
Month 1			
Month 2			
Month 3			

9 No deviation occurred in this quarter.

9 Deviation/s occurred in this quarter.  
Deviation has been reported on: \_\_\_\_\_

**Submitted by:** \_\_\_\_\_  
**Title / Position:** \_\_\_\_\_  
**Signature:** \_\_\_\_\_  
**Date:** \_\_\_\_\_  
**Phone:** \_\_\_\_\_

**Conclusion**

The operation of this spray paint booth shall be subject to the conditions of the attached proposed FESOP Significant Permit Revision 123-13729-00022.

**Appendix A: Emissions Calculations  
VOC and Particulate  
From Surface Coating Operations**

Page 1 of 2 TSD App A

**Company Name:** Waupaca Pallet, Inc.  
**Address City IN Zip:** Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
**SPR:** 123-13729-00022  
**Plt ID:** 123-00022  
**Reviewer:** Linda Quigley/EVP  
**Date:** February 13, 2007

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Valspar AAW0378	13.10	26.00%	0.0%	26.0%	0.0%	52.00%	0.00041	20000.000	3.41	3.41	27.93	670.30	122.33	174.08	6.55	50%
Valspar WAA0164	11.95	20.15%	1.3%	18.9%	24.4%	51.89%	0.00041	20000.000	2.98	2.25	18.47	443.31	80.90	171.36	4.34	50%

**State Potential Emissions**

**27.93          670.30          122.33          174.08**

**Federal Potential Emissions (controlled):**

Control Efficiency:		Controlled VOC lbs per Hour	Controlled VOC lbs per Day	Controlled VOC tons per Year	Controlled PM tons/yr
VOC	PM				
0.00%	95.00%	27.93	670.30	122.33	8.70

**Total Federal Potential Emissions:**

Note: Coatings are mutually exclusive. Potential to emit uses worse case coating (Valspar AAW0378).

**METHODOLOGY**

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) \* Weight % Organics) / (1-Volume % water)  
Pounds of VOC per Gallon Coating = (Density (lb/gal) \* Weight % Organics)  
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr)  
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (24 hr/day)  
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) \* Gal of Material (gal/unit) \* Maximum (units/hr) \* (8760 hr/yr) \* (1 ton/2000 lbs)  
Particulate Potential Tons per Year = (units/hour) \* (gal/unit) \* (lbs/gal) \* (1- Weight % Volatiles) \* (1-Transfer efficiency) \*(8760 hrs/yr) \*(1 ton/2000 lbs)  
Pounds VOC per Gallon of Solids = (Density (lbs/gal) \* Weight % organics) / (Volume % solids)

**Appendix A: Emission Calculations**  
**HAP Emission Calculations**

Page 2 of 2 TSD App A

**Company Name:** Waupaca Pallet, Inc.  
**Address City IN Zip:** Lot 6, Commerce Drive, Tell City Industrial Park, Troy, IN 47588  
**SPR#:** 123-13729-00022  
**Plt ID:** 123-00022  
**Permit Reviewer:** Linda Quigley/EVP  
**Date:** February 13, 2001

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Xylene Emissions (ton/yr)
Valspar WAA0164	11.95	0.000410	20000.00	5.00%	21.46

Total State Potential Emissions

**21.46**

**METHODOLOGY**

HAPS emission rate (tons/yr) = Density (lb/gal) \* Gal of Material (gal/unit) \* Maximum (unit/hr) \* Weight % HAP \* 8760 hrs/yr \* 1 ton/2000 lbs